Wagstaff Inc. would like to be able to demonstrate the advantages of switching from a rotameter to a mass flow meter to measure air flow for their direct chill casting machines.

**Key Needs**
- Portability
- Lightweight
- Durability

**Metrics**
- Can fit in a briefcase
  - (around 12” x 16” x 5”)
- Under 10 lbs
- Can withstand going through customs

The final apparatus will demonstrate how the back pressure of the system increases as the porosity of the graphite ring decreases. The mass flow meter corrects for this change in back pressure while the rotameter must be manually calibrated to do so.